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| FORM PTO-1390 (Modified) U.S. PATENT AND TRADEMARK OFFICE; U.S. DEPARTMENT OF COMMERCE<br>(REV. 7-2005)   |  | ATTORNEY'S DOCKET NUMBER<br><b>050508-1410</b>                      |
| TRANSMITTAL LETTER TO THE UNITED STATES<br>DESIGNATED/ELECTED OFFICE (DO/EO/US)<br>CONCERNING A SUBMISSION UNDER 35 U.S.C. 371  |  | U.S. APPLICATION NO. (If known, see 37 CFR 1.5)<br><b>10/578131</b> |
| INTERNATIONAL APPLICATION NO.<br><b>PCT/US2004/037090</b>   | INTERNATIONAL FILING DATE<br><b>08 November 2004</b> | PRIORITY DATE CLAIMED<br><b>07 November 2003</b>                    |
| TITLE OF INVENTION<br><b>HIF-1 INHIBITORS AND METHODS OF USE THEREOF</b>  |  |   |
| APPLICANT(S) FOR DO/EO/US<br><b>HARRIS, et al.</b>  |  |   |
| Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:   |  |   |
| <ol style="list-style-type: none"> <li>1. <input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a submission under 35 U.S.C. 371.</li> <li>2. <input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a submission under 35 U.S.C. 371.</li> <li>3. <input type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (24) indicated below.</li> <li>4. <input checked="" type="checkbox"/> The US has been elected (Article 31).</li> <li>5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371 (c)(2))             <ol style="list-style-type: none"> <li>a. <input checked="" type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> has been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li> </ol> </li> <li>6. <input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).             <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> is attached hereto.</li> <li>b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).</li> </ol> </li> <li>7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))             <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> have been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li>d. <input type="checkbox"/> have not been made and will not be made.</li> </ol> </li> <li>8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</li> <li>9. <input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).</li> <li>10. <input type="checkbox"/> An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).</li> <li>11. <input type="checkbox"/> A copy of the International Preliminary Examination Report (PCT/IPEA/409).</li> <li>12. <input checked="" type="checkbox"/> A copy of the International Search Report (PCT/ISA/210).</li> </ol> |  |   |
| Items 13 to 23 below concern document(s) or information included:   |  |   |
| <ol style="list-style-type: none"> <li>13. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</li> <li>14. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</li> <li>15. <input type="checkbox"/> A <b>FIRST</b> preliminary amendment.</li> <li>16. <input type="checkbox"/> A <b>SECOND</b> or <b>SUBSEQUENT</b> preliminary amendment.</li> <li>17. <input type="checkbox"/> A substitute specification.</li> <li>18. <input type="checkbox"/> A power of attorney and/or change of address letter.</li> <li>19. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821 - 1.825.</li> <li>20. <input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4).</li> <li>21. <input type="checkbox"/> A second copy of the English language translation of the International Application under 35 U.S.C. 154(d)(4).</li> <li>22. <input checked="" type="checkbox"/> Express Mail Label No. <b>EV 861589914US</b></li> </ol>  |  |   |

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

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| U.S. APPLICATION NO (if known, see 37 CFR 1.5)<br><b>10/578131</b> | INTERNATIONAL APPLICATION NO.<br><b>PCT/US2004/037090</b> | ATTORNEY'S DOCKET NUMBER<br><b>050508-1410</b> |
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## 23. Other items or information:

**Certificate of Mailing; Return Postcard**

| The following fees have been submitted:   |              |  |                          | CALCULATIONS | PTO USE    |
|---|--------------|--|--------------------------|--------------|------------|
| 24. <input checked="" type="checkbox"/> Basic national fee .....  |              |  |                          | \$300        | \$300.00   |
| 25. <input checked="" type="checkbox"/> Examination fee (37 CFR 1.492(c))<br>If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)(4) . . . \$0<br>All other situations . . . \$200  |              |  |                          | \$           | \$200.00   |
| 26. <input checked="" type="checkbox"/> Search fee (37 CFR 1.492(b))<br>If the written opinion of the ISA/US or the International preliminary examination report by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4) . . . \$0<br>Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the as an International Searching Authority . . . \$100<br>International Search Report prepared by an ISA other than the US and provided to the previously communicated to the US by the IB . . . \$400<br>All other situations . . . \$500 |              |  |                          | \$           | \$100.00   |
| <b>TOTAL OF 24, 25 and 26 =</b>   |              |  |                          | \$           | \$600.00   |
| <input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)).<br>The fee is \$250 for each additional 50 sheets of paper or fraction thereof.   |              |  |                          |              |            |
| Total Sheets  | Extra Sheets | Number of each additional 50 or fraction thereof (round up to a whole) |                          | RATE         |            |
| 75 - 100 =  | 0 /50 =      | 0  |                          | x \$250.00   | \$ 0.00    |
| Surcharge of \$130.00 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).   |              |  |                          |              |            |
| CLAIMS  | NUMBER FILED | NUMBER EXTRA   | RATE                     |              |            |
| Total claims  | 33 - 20 =    | 13   | x \$50.00                | \$           | \$650.00   |
| Independent claims  | 1 - 3 =      | 0  | x \$200.00               | \$           | \$0.00     |
| MULTIPLE DEPENDENT CLAIMS (if applicable)   |              |  | <input type="checkbox"/> | + \$360.00   | \$ 0.00    |
| <b>TOTAL OF ABOVE CALCULATIONS =</b>  |              |  |                          | \$           | \$1,380.00 |
| <input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.   |              |  |                          | \$           | \$690.00   |
| <b>SUBTOTAL =</b>   |              |  |                          | \$           | \$690.00   |
| Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).   |              |  |                          | \$           | \$0.00     |
| <b>TOTAL NATIONAL FEE =</b>   |              |  |                          | \$           | \$690.00   |
| Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40 per property +   |              |  |                          | \$           | \$0.00     |
| <b>TOTAL FEES ENCLOSED =</b>  |              |  |                          | \$           | \$690.00   |
|   |              |  |                          | Amount to be | \$         |
|   |              |  |                          | Amount to be | \$         |

10/578131

PTO-1390 (Rev. 07-2005)

Approved for use through 3/31/2007. OMB 0651-0021  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

- a.  A check in the amount of \$ \_\_\_\_\_ to cover the above fees is enclosed.
- b.  Please charge my Deposit Account No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_ to cover the above fees.  
A duplicate copy of this sheet is enclosed.
- c.  The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 20-0778. A duplicate copy of this sheet is enclosed.
- d.  Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

**NOTE:** Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.

SEND ALL CORRESPONDENCE TO:

Christopher B. Linder

THOMAS, KAYDEN, HORSTEMEYER &amp; RISLEY, LLP.

100 Galleria Pkwy., Suite 1750

Atlanta, GA 30339-5948

\_\_\_\_\_  
SIGNATURE

Christopher B. Linder

NAME

47,751

REGISTRATION NUMBER

May 2, 2006

DATE

10/578131  
IAP12 Rec'd PCT/PTO 02 MAY 2006

IN THE UNITED STATES RECEIVING OFFICE (RO/US)  
UNDER THE PATENT COOPERATION TREATY

In Re Application of: Emory University  
Int. Appln. No.: PCT/US04/37090  
Int. Filing Date: 08 November 2004  
Title: HIF-1 Inhibitors and Methods of Use Thereof  
Atty Docket No.: 050508-2370

**RESPONSE TO INVITATION TO COMMENT  
ON ABSTRACT UNDER PCT RULE 38.2(b)**

Assistant Commissioner for Patents  
BOX: PCT  
PO Box 1450  
Alexandria, VA 22313-1450

In response to the Invitation to Comment on the Abstract for a one-month period following the transmittal of the International Search Report mailed on 08 November 2005, Applicant herewith submits a replacement Abstract Of The Disclosure.

Applicant respectfully requests that the replacement Abstract be published with the International Application.

Respectfully submitted,



Christopher B. Linder  
Registration No. 47,751

**THOMAS, KAYDEN,  
HORSTEMEYER & RISLEY, L.L.P.**  
100 Galleria Parkway, NW Suite 1750  
Atlanta, GA 30339-5948  
(770) 933-9500

cc: WIPO VIA FACSIMILE 41 22 338 8720

10/578131  
IAP12 Rec'd PCT/PTO 02 MAY 2006

PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of: EMORY UNIVERSITY  
Int. Appln. No.: PCT/US04/37090  
Int. Filing Date: 08 November 2004  
Title: HIF-1 Inhibitors and Methods of Use Thereof  
Atty Docket No.: 050508-2370

CERTIFICATE OF EXPRESS MAIL

Assistant Commissioner for Patents  
BOX: PCT  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

Enclosed for filing in the above case are the following documents:

Return Postcard  
Response to Invitation to Comment on Abstract  
Substitute Abstract

Further, the Commissioner is authorized to charge Deposit Account No. 20-0778 for any additional fees required. The Commissioner is requested to credit any excess fee paid to Deposit Account No. 20-0778.

Respectfully submitted,



Christopher B. Linder  
Registration No.: 38,962

**THOMAS, KAYDEN, HORSTEMEYER  
& RISLEY, L.L.P.**  
100 Galleria Parkway, N.W.  
Suite 1750  
Atlanta, Georgia 30339-5948

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I hereby certify that all correspondences listed above are being deposited for delivery to the above addressee, with the United States Postal Service "**EXPRESS MAIL POST OFFICE TO ADDRESSEE**" service under 37 CFR §1.10 on the date indicated below:

The envelope has been given U.S. Postal Service "Express Mail Post Office To Addressee" Package # EV558411136US.

Date: 11/28/05



Sara Rogers